

CLAIM AMENDMENTS

1. (Twice Amended) A system for monitoring and wireless signaling of a pressure or a change of pressure in pneumatic tires on vehicles, comprising:
wheel electronics that are disposed inside the pneumatic tires and are provided with a battery as a power source, the electronics comprising a pressure sensor for measuring the pressure or the change of pressure, a RF-transmitter for transmitting a signal derived from the signal of the pressure sensor, and a first receiver for receiving wireless interrogation signals and/or control signals,
a second receiver arranged in or on the vehicle and which receives the signal derived from the signal of the pressure sensor,
a device for signaling to the driver information relating to the pressure or change of pressure,
and transmitters for emitting interrogation signals and/or control signals, the transmitters being disposed, respectively, individually near each running wheel and having a transmission frequency of less than 1 MHz, said transmitter for emitting interrogation and/or control signals comprising an oscillating circuit comprising a radiator and an amplifier having an amplifier input and an amplifier output, the amplifier output being coupled back to the amplifier input via the radiator.
2. (Previously Presented) The system as defined in Claim 1, wherein the oscillating circuit further comprises a comparator which transforms a voltage applied to its input, which varies over time, to a square-wave voltage.
3. (Previously Presented) The system as defined in claim 1 wherein the oscillating circuit is a series-resonant circuit.
4. (Previously Presented) The system as defined in claim 1 wherein the radiator is arranged in the wheel case of the vehicle.
5. (Previously Presented) The system as defined in claim 1 wherein the radiator is a ferrite rod antenna.
6. (Previously Presented) The system as defined in claim 1 wherein the oscillating circuit further comprises an active resistance to which the radiator provides the predominant contribution.

7. (Previously Presented) The system as defined in claim 1 further comprising a current meter for measuring the current flowing through the radiator and for supplying measured values to a logic circuit.
8. (Previously Presented) The system as defined in claim 1 wherein the oscillating circuit has a Q value of at least 20.
9. (Previously Presented) The system as defined in claim 1 wherein the transmission frequency of the transmitter for emitting interrogation and/or control signals is 50 to 300 kHz.
10. (Previously Presented) The system as defined in claim 9, wherein the transmission frequency of the transmitter for emitting interrogation and/or control signals is 70 to 150 kHz.
11. (Previously Presented) The system as defined in claim 2, wherein the oscillating circuit is a series-resonant circuit.
12. (Previously Presented) The system as defined in claim 2, wherein the radiator is arranged in the wheel case of the vehicle.
13. (Previously Presented) The system as defined in claim 2, wherein the radiator is a ferrite rod antenna.
14. (Previously Presented) The system as defined in claim 2, wherein the oscillating circuit further comprises an active resistance to which the radiator provides the predominant contribution.
15. (Previously Presented) The system as defined in claim 2 further comprising a current meter for measuring the current flowing through the radiator and for supplying measured values to a logic circuit.
16. (Previously Presented) The system as defined in claim 2, wherein the oscillating circuit has a Q value of at least 20.

17. (Previously Presented) The system as defined in claim 7, wherein the oscillating circuit has a Q value of at least 20.

18. (Previously Presented) The system as defined in claim 2, wherein the transmission frequency of the transmitter for emitting interrogation and/or control signals is 50 to 300 kHz.

19. (Twice Amended) A system for monitoring and wireless signaling of a pressure or a change of pressure in pneumatic tires on vehicles, comprising:

wheel electronics disposed inside the pneumatic tires and provided with a battery as a power source, the electronics comprising a pressure sensor for measuring the pressure or the change of pressure,

a RF-transmitter for transmitting a signal derived from the signal of the pressure sensor,

a first receiver for receiving wireless interrogation signals and/or control signals,

a second receiver arranged in or on the vehicle and which receives the signal derived from the signal of the pressure sensor,

a device for signaling to the driver information relating to the pressure or change of pressure, and

transmitters for emitting interrogation signals and/or control signals, the transmitters being disposed, respectively, individually near each running wheel and having a transmission frequency of less than 1 MHz, said transmitter for emitting interrogation and/or control signals comprises an oscillating circuit,

the oscillating circuit comprising a radiator arranged in the wheel case of the vehicle, an amplifier having an amplifier input and an amplifier output, the amplifier output being coupled back to the amplifier input via the radiator, a comparator which transforms a voltage applied to its input, which varies over time, to a square-wave voltage, wherein the oscillating circuit is a series-resonant circuit, an active resistance to which the radiator provides the predominant contribution, the oscillating circuit has a Q value of at least 20.

a current meter for measuring the current flowing through the radiator and for supplying measured values to a logic circuit,

wherein the transmission frequency of the transmitter for emitting interrogation and/or control signals is 50 to 300 kHz

20. (Previously Presented) The system as defined in claim 19 wherein the radiator is a ferrite rod antenna and the transmission frequency of the transmitter for emitting interrogation and/or control signals is 70 to 150 kHz.